

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049177 A1

(51) International Patent Classification⁷: **B01D 46/24**,
45/04, 50/00

(21) International Application Number:
PCT/US2004/038369

(22) International Filing Date:
16 November 2004 (16.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/520,906 17 November 2003 (17.11.2003) US

(71) Applicant (for all designated States except US): **DON-
ALDSON COMPANY, INC.** [US/US]; 1400 West 94th
Street, P.O. Box 1299, Minneapolis, MN 55440-1299 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CASEY, Michael,**

James [US/US]; 18285 Overland Trail, Eden Prairie, MN
55347 (US). **READ, Brian** [GB/US]; 3825 Westbury
Drive, Eagan, MN 55123 (US).

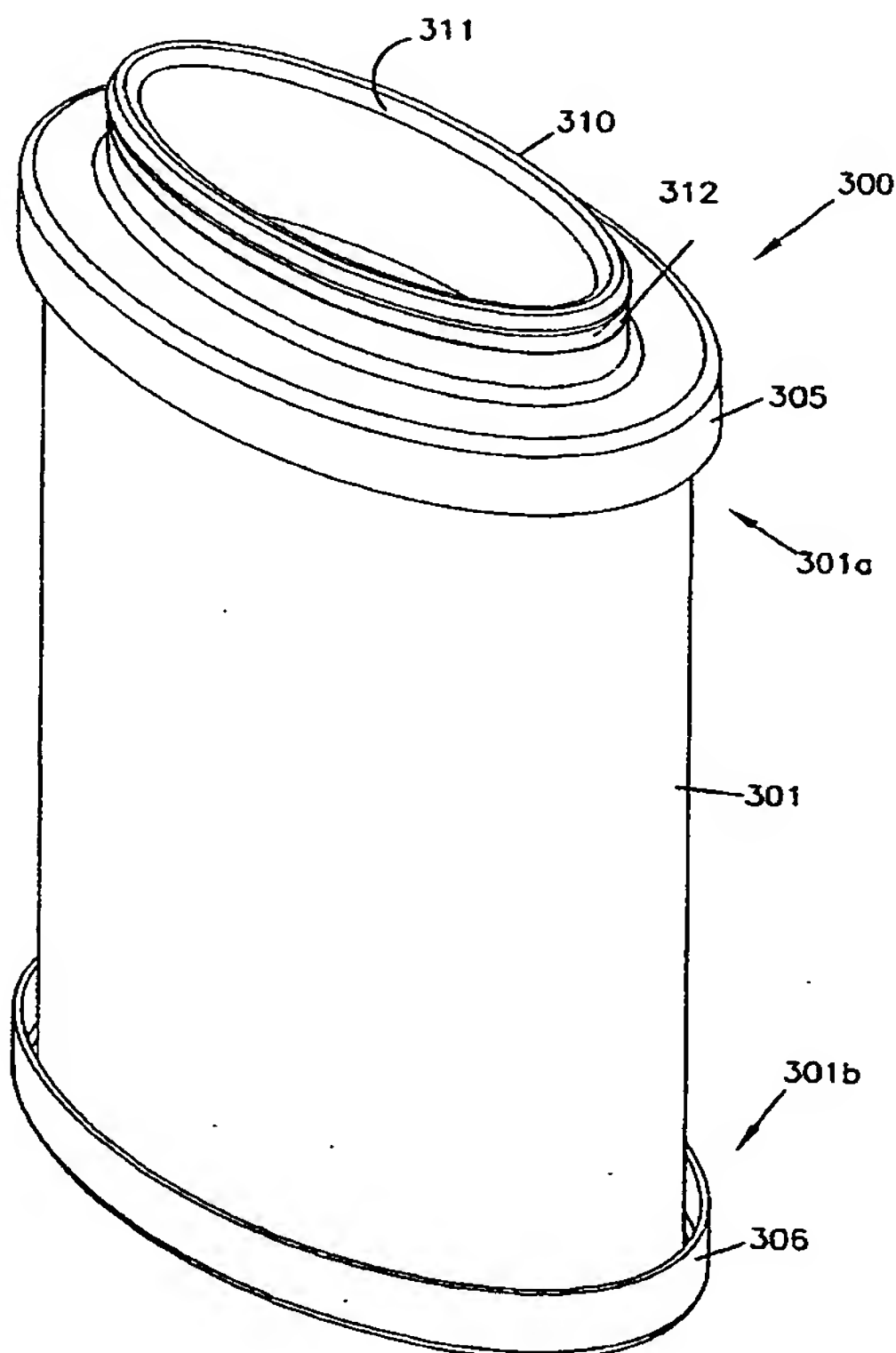
(74) Agent: **BRUESS, Steven, C.**; Merchant & Gould P.C.,
P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: SEPARATOR ARRANGEMENT FOR GAS/LIQUID SEPARATION; APPARATUS; AND, METHODS



(57) Abstract: A serviceable gas/liquid separator (300) is provided. The gas/liquid separator has a cross-section with one long axis and one short axis, with an aspect ratio of at least 1.3. A preferred cross-section, is an elliptical cross-section. Assemblies in which the separator unit can be used, are provided. In addition methods of use and construction are provided.

WO 2005/049177 A1



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.